



NSAI
Standards

Irish Standard
I.S. EN 16192:2011

Characterization of waste - Analysis of eluates

I.S. EN 16192:2011

Incorporating amendments/corrigenda/National Annexes issued since publication:

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This document replaces:
EN 12506:2003, EN 13370:2003

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Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

Characterization of waste - Analysis of eluates

Caractérisation des déchets - Analyse des éluats

Charakterisierung von Abfällen - Analyse von Eluaten

This European Standard was approved by CEN on 15 October 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN 16192:2011) has been prepared by Technical Committee CEN/TC 292 “Characterization of waste”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12506:2003 and EN 13370:2003.

Details of significant technical changes between this European Standard and the previous edition are:

- This European Standard, EN 16192, is now a single document (instead of two) for the analysis of eluates specifying methods for the determination of the parameters pH, ammonium, AOX, As, Ba, Cd, Cl⁻, easily liberatable CN⁻, Co, Cr, Cr(VI), Cu, DOC/TOC, electrical conductivity, F⁻, Hg, Mo, Ni, NO₂⁻, Pb, phenol index, total S, Sb, Se, SO₄²⁻, TDS, V and Zn in aqueous eluates for the characterization of waste.
- In Clause 7 the parameters, previously described in two documents, are now all integrated in Table 1.
- In Table 1 for all parameters EN and ISO standards are updated, removed if withdrawn and new relevant standards are added, i.e.:
 - addition of the parameters Sb and Se together with the related analytical methods;
 - revision of the standards EN ISO 11885 (ICP-OES) and EN ISO 10304-1 (IC);
 - addition of the ICP-MS method (EN ISO 17294-1:2006 and EN ISO 17294-2:2004);
 - addition of the AAS with graphite furnace technique (EN ISO 15586:2003);
 - addition of the flow analysis techniques for Cl⁻ (EN ISO 15682:2001), Cr(VI) (EN ISO 23913:2009) and SO₄²⁻ (ISO 22743:2006);
 - addition of the parameter TDS (total dissolved solids) together with the related analytical method;
 - addition of the parameter DOC (dissolved organic carbon) to the parameter TOC (total organic carbon);
 - revision of the standards EN ISO 11732 (ammonium by flow analyser);
 - replacement of EN 1485 (AOX) by EN ISO 9562:2004;
 - revision and addition of new standards for Hg determination – EN 1483 and EN ISO 17852.
- In Annex B (informative) additional validation data are added obtained from a round robin test for the determination of Ba, Cd, Cr, Mo, Sb and Se in eluates and from round robin tests in the framework of acceptability of waste at landfills, both organized in Belgium.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European standard is intended to be used for the characterization of waste as defined in the Council Directive 75/442/EEC on waste, as amended by Council Directive 91/156/EEC of 18th March 1991, and national regulations, whose final destination for disposal is landfill. In the Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC, the test methods are described for determining the acceptability of waste at landfills. In section 3 of the Annex of this Decision the European standards EN 12506 and EN 13370 are included which are replaced by this European Standard.

This European Standard deals with the determination of chemical constituents, electrical conductivity, pH and total dissolved solids (TDS) in eluates which have been obtained by leaching of waste samples for example using EN 12457 "Characterization of waste - Leaching - Compliance test for leaching of granular waste materials and sludges" (Part 1 to Part 4). In principle, it may be used for the analysis of every kind of eluate as long as the performance characteristics of the applied analytical method fulfill the specific requirements.

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